Synthesis

I. Study background and motivation

After a long period of neglect, West Africa's Agriculture is back on the policy agenda. The region's governments and their development partners now clearly recognise the sector's vital role for economic growth and poverty reduction. At the same time, the context within which the sector operates has changed radically over the past 30 years. West African societies are in the midst of rapid demographic and socioeconomic transformations, with population growth, urbanization, rising incomes and globalization acting as key drivers of change. The Agricultural policy environment has also evolved dramatically; democratization, decentralization and liberalization have broadened the number of actors involved in policy processes and the range of issues in policy debates. At the same time, West Africa's agrifood system faces continuing challenges of a declining natural resource base, recurrent natural and human-caused disasters, climate change, and political instability. Moreover, as regional integration has gained momentum, the role of regional organizations in shaping policies for Agriculture has increased.

These transformations in West Africa are taking place in an evolving international environment characterised by more volatile climatic and market conditions and growing competitive pressures. Several international trends stand out: (1) the growing importance of emerging economies, both as markets for West African agricultural exports and as sources of food imports, technologies and investments; (2) an increasingly globalized and concentrated agribusiness and food retail sector, expanding both its sourcing and sales in developing countries; (3) world agricultural markets shifting from a period of structural oversupply and declining prices towards one of higher and more volatile prices; (4) higher energy prices and increasing integration of world Agricultural and energy markets; and (5) eroding confidence in

trade-based food security following export bans by suppliers of key food staples during the 2008 food price crisis, coupled with the stalemate, until recently, of international trade negotiations under the Doha Round.

These changes create promising opportunities but also daunting challenges for West African agrifood systems and render Agricultural policy making increasingly complex. In addition to agricultural production and food security, issues related to sustainable resource management, nutrition, competitiveness, employment generation and linkages with other economic sectors are becoming ever-more critical components of Agricultural policy. It is clear that in order to shape the transformation of the agrifood system, agricultural policy making needs to transcend the traditional realm of Agricultural-sector institutions primarily dealing with on-farm production. Policy makers in the region face the challenge of how to coordinate and implement Agricultural and non-agricultural policies in order to shape the region's structural transformation in ways that contribute strongly to several key objectives simultaneously. These include inclusive economic growth, job creation, poverty reduction, food security, and satisfying increased consumer demands for convenient and healthy food, while doing all of this in an environmentally, economically and socially sustainable way. Meeting these challenges requires addressing the constraints to better agrifood system performance all the way from input provision to delivery of the final product to the consumer. Therefore, in this study we refer to "Agriculture" (with a capital "A") as including the entire agrifood system, from input provision to the consumer's table. (Small "a" agriculture in this study refers to farming, inclusive of both crops and animal production.)

In view of the challenges and opportunities facing West African Agriculture, the African

Development Bank (AfDB), with support from the Government of France, approached the Food and Agriculture Organization of the United Nations (FAO) and ECOWAS about conducting a joint analytical study. The purpose of the Agricultural Growth in West Africa (AGWA) study is to (1) contribute to a better understanding of the evolving context for Agricultural growth in West Africa by examining more closely the drivers and trends affecting the demand for and supply of agrifood products, (2) analyse the ability of the Agricultural sector to respond to those trends, (3) review the evolution and appropriateness of the policy environment to respond to these changes and (4) distil the main implications for future policy priorities. While a full analysis of the agrifood system in its entirety "from seed to waste" is beyond the scope of a single study, the AGWA study pays particular attention to some of the downstream segments such as agroprocessing, trade, food consumption, and food retailing, as well as some value chains of key importance in the region.

The AGWA study examines these issues from the regional perspective of the 15 ECOWAS member countries, complementing previous studies of Agricultural development at the national, continental and global levels. The purpose is to collate scattered and fragmented evidence and analysis on the various aspects of the West African agrifood transformation-including production, consumption, trade, value chains, agro-industries and retailing - in one volume, in order to make it available to a broad audience interested in agrifood policies and investments in the region. Such compilation not only facilitates access of a broad range of stakeholders to the current body of evidence and analysis on the subject but also highlights linkages, synergies and trade-offs among different policy domains, a prerequisite for evidence-based policy making and coordination beyond the narrow confines of traditional sectoral policies. This study therefore targets a broad audience including policymakers and practitioners in national governments, regional organizations, and development partners as well as civil-society and privatesector organizations engaged in agrifood system related policy domains. Students and scholars in the region and elsewhere studying West African Agricultural development may also find the study useful. Given its scope and thematic breadth, it mainly draws on secondary data and a large body of literature. In order to carry out a first literature review and data analysis and to fill information gaps, the AGWA team also commissioned selected background papers and carried out limited fieldwork in areas in which secondary information was grossly inadequate. The fieldwork focused primarily on understanding changing consumer attitudes that are driving the rapidly evolving food consumption behaviour in West Africa's burgeoning megalopolises and the responses of agroprocessors, supermarkets and fast food restaurants to these changes.

The following sections of this synthesis first present the study's major findings regarding the key trends and drivers of change in West African Agriculture. They next discuss how the agrifood system and Agricultural policies have responded to these drivers and trends. The synthesis concludes by presenting major policy priorities and guiding principles to enhance the effectiveness of Agricultural policies in helping West Africa capture the opportunities and deal with the challenges highlighted in the AGWA study.

II. Key trends and drivers of change

West African countries are undergoing rapid demographic and socio-economic changes, with important implications for the demand and supply of agrifood products. Despite variations across the region, the broad trends are clear.

Key demographic trends

West Africa's population is growing fast. Over the last thirty years, it has more than doubled, growing by 2.7% annually. Population growth rates vary between countries, with the poorest countries having the fastest growth. Only a few countries have entered their demographic transitions towards lower birth rates. Hence, the regional population, currently estimated at 300 million, is expected to reach 388 million by 2020 and 490 million by 2030.

West Africa's population is predominantly young, with 44% below the age of 15. Hence, 80 million young people currently between the ages of 5 and 14 will enter the labour market over the next decade.

West Africa is rapidly urbanising. The region is already the most urbanised in sub-Saharan Africa, with almost half of the population living in urban settlements in 2013, up from 33% in 1990. Two main trends stand out: (1) the rapid growth of national metropolitan areas that account for 40% of the urban population, and their primacy over secondary cities and towns, and (2) the proliferation of small towns at the lower boundary of urbanization in rural areas, in proximity to large cities and along major highways and transport corridors.

Strong migratory movements continue, within and across national borders, driven by urbanization, population growth and varying economic opportunities across the region. Intraregional migration has been characterised by high rates of rural-to-urban migration, movements of people from the Sahelian to Sudano-Guinean zones and from the inland countries to the wealthier coastal states.

Despite migration, rural populations continue to grow in absolute terms. Moreover, rural population is concentrated; 16% of the rural population lives on 1% of the rural space, and 51% lives on 10% of the rural space. As a result, rural population growth increases the pressure on land and natural resources and contributes to land fragmentation, especially in high-potential, densely populated areas with good market access. Since the reserves of unutilized land suitable for agricultural production are limited in West Africa, land conversion from forest or rangelands leads to increasing environmental costs and conflicts.

Key socio-economic trends

Overall economic performance has improved markedly. Starting in the late 1990s, most West African countries entered a prolonged period of strong economic growth. However, there were important variations across countries concerning the levels and quality of growth. While Cape Verde, Ghana, Burkina Faso, Nigeria, and Mali saw strong per capita GDP growth, between 2% and 3% per annum over the past 20 years, other countries stagnated or had negative growth in per capita terms, due to conflict, less effective policies and poor governance. Moreover, the inclusiveness of this growth has been diverse; while growth in Ghana and Burkina Faso was broad-based, Nigeria's and Mali's growth was coupled with worsening income distributions. Moreover, all four countries experienced unequal spatial patterns of growth, with widening gaps between northern and southern parts, resulting in a continuous source of tension and concern.

Poverty levels have been declining, albeit by varying degrees. Of the 11 countries for which data are available for multiple years between 1985 and 2008, poverty measured by the US\$1.25 poverty headcount ratio declined in eight¹, remained unchanged in one country (Guinea Bissau), and increased in two (Nigeria and Côte d'Ivoire). However, during the mid-2000s more than half of the entire regional population still lived on less than US\$1.25 per day. Poverty rates are lowest in Cape Verde, followed by Côte d'Ivoire, Ghana and Senegal. Data with respect to national poverty lines show that poverty remains heavily concentrated in rural areas, with poverty rates two to three times higher than in urban areas.

Despite recurrent crises, food insecurity levels also declined across the region, both in absolute numbers and as a percentage of undernourished persons, and undernutrition rates are generally lower than in other parts of sub-Saharan Africa. The proportion of undernourished people in the total population halved from 20% to 10% between 1990 and 2006-08, with the number of undernourished persons declining from 37.3 million to 28.5 million during the same period. At the same time, problems of over-nutrition (obesity and overweight) have begun to emerge as serious problems in some urban areas, with attendant non-communicable diseases such as diabetes and heart disease.

¹ Burkina Faso, The Gambia, Ghana, Guinea, Mali, Niger, Senegal and Sierra Leone.

Middle classes are growing. As a result of economic and demographic growth, the region's middle classes have been expanding and receiving increased attention by policymakers and the private sector. Since "middle class" is a multidimensional term, definitions vary and comparable statistics across countries are rare. Using daily per capita expenditure as a simple proxy and US\$2 per day as a lower boundary, 25% of West Africans (about 70 million people) belonged to the middle class in 2008.2 This regional average is strongly influenced by Nigeria, where only 23% of the population is middle class. The share of the middle-class population was highest in Cape Verde and Ghana (46% each), Côte d'Ivoire (37%) and Senegal (35%).

A further disaggregation of the non-poor population shows that the largest segment, 16 % (40.9 million persons), belonged to the so-called "floating class" just above the poverty line, spending between US\$2 and US\$4 per capita and day. Above this floating class, 8% (19.2 million persons) fell into the lower middle class, spending between US\$4 and US\$10 per person per day,³ and another 4% (10.9 million people) belonged to the upper middle-class, with daily per capita expenditure between US\$10 and US\$20.

Structural transformation remains incomplete. The demographic and socio-economic changes just described are part of a broader structural transformation, a defining feature of the development process, typically characterised by four interrelated processes: (1) a declining share of agriculture in GDP, (2) the rise of a modern industrial and service economy, (3) rapid urbanization as people migrate from rural to urban areas, and (4) demographic transition from high to low rates of births and deaths.

West African structural transformation is incomplete, with the four interrelated processes progressing at different velocities: while urbanization is progressing fast, there has been little change in the sectoral composition of the economy, and only three countries (Cape Verde, Côte d'Ivoire and Ghana) are moving rapidly towards markedly lower birth rates. The services sector dominates the economy, contributing 42% to the GDP on average over the past decade, followed by agriculture (35%) and industry (23%). The share of the services sector is higher than that seen in other developing regions and agriculture's share is lower, taking into account differences in per capita income. Industry's contribution to GDP only increased in 7 of the 15 countries between the 1980s and the first decade of the 21st Century. Moreover, industrial growth has been mainly in extractive industries - mining and oil - which are capital-intensive and generate little employment. Manufacturing, historically the key driver of growth and structural transformation elsewhere in the world, has underperformed in West Africa.

An important feature of the structural transformation in West Africa has been the shift of labour from underperforming agriculture into the urban and rural informal service economy, which is characterised by low productivity and income levels. Estimates of the contribution of the informal economy to the GDP ranges from 43% (Cote d'Ivoire) to 77% (Niger). A large part of the rural non-farm economy belongs to the informal sector and is only partially reflected in official statistics.

Marked differences persist within the region

These broad trends mask considerable differences between countries and sub-regions. West Africa is a highly diverse region in terms of agro-ecological conditions, population distribution, and the size of the national economies, and this diversity has important implications for the dynamics of regional integration.

Agricultural production conditions are highly diverse, and climate change will exacerbate this diversity. West Africa is comprised of wide variety of ecosystems and an equally high number of production systems. Agricultural activities range from nomadic pastoralism in the far north to root-crop and tree-crop systems in the south. There is a five-fold

² Based on 2005 purchasing power parity.

³ The term "floating class" refers to the vulnerability of this population segment, which may easily fall back into poverty.

increase in crop output per ha as one moves from the agropastoral systems of the Sahel (approximately US\$240/ha) to the tree-crop systems of the south (US\$1 125/ha).

West Africa's population is unequally distributed, and migration accentuates this trend. From a demographic standpoint, the region is made up of one giant country, six moderate-sized countries, and eight small ones. Population distribution and migration patterns have been strongly influenced by agroclimatic conditions, land availability and variable economic opportunities among countries in the region. Three-quarters of the West African population lives in humid and sub-humid zones, 20% in the semi-arid zone (Sahel) and 5% in the arid zone. In 2006, coastal cities already accounted for almost 38% of the entire population of the region, compared to 28% in 1950. Given current migration patterns, by 2020 a high-density urban area will have formed running along the breadth of the coastal area of the Gulf of Guinea.

The region's heterogeneity is even stronger in economic terms. Nigeria alone accounts for almost two-thirds of the regional GDP in 2009. The contribution of the three largest economies – Nigeria, Ghana, and Côte d'Ivoire – to regional GDP amounts to 81%, exceeding their share in the total regional population of 67%. Income levels, as measured by GDP per capita, also vary widely across the zone, with Cape Verde, Nigeria, Côte d'Ivoire, Senegal and Ghana having the highest per capita income levels.

Countries are at different stages in their structural transformation. Cape Verde has moved furthest; the country is highly urbanised and the food consumption structure has shifted towards a more European-style diet. On the other end of the spectrum, Niger has barely started its transformation towards a more urban, diversified and higher-income society. Coastal countries are more urbanised, and agriculture's contribution to the economy is less than in the inland countries. Due to these differences, the structural transformation has been faster and more pronounced in the large coastal countries that boast most of the region's urban middle-class.

III. Implications of these trends and drivers of change for Agricultural growth and policies

These drivers and trends create unprecedented opportunities but also new challenges for West African Agriculture and related policies.

Unprecedented opportunities for Agricultural growth stem from:

- » An increasingly dynamic West African food market, due to the combination of population growth, urbanization and higher output prices that has resulted in a rapid expansion of domestic and regional food markets. This market growth is likely to continue and accelerate in the foreseeable future in view of high income elasticities for most food products. The strongest market growth potential exists for animal products, followed by rice, fish, and fruits and vegetables. Producing and marketing such products are labour-intensive and thus offer potential for substantial job creation if the demand can be met through local production rather than imports.
- An increasingly diverse food demand, propelled by socio-economic differentiation, need for convenience and globalization. Population growth rates of 2 to 3% in most countries will continue to fuel demand for basic calories, especially for the 75% of the population still living on less than US\$2 per day. At the same time, a growing middle class population will increase the demand for higher-value and value-added food products. Food demand is transforming from undifferentiated bulk commodities towards food products with differentiated quality attributes. While price remains a key determinant of demand, other product attributes such as nutritional and health characteristics, presentation and packaging, shelf-life, and ease of preparation and convenience are increasingly important in shaping consumer preferences and purchasing decisions. These trends are fuelled by broader access to media, food imports and the advent of international fast food and supermarket chains.

- Rapid urbanization and rural urban linkages. While these changes are occurring most rapidly in the large metropolitan areas accounting for approximately 40% of the urban population, similar trends are gradually following in intermediate cities and towns. Analysis of budget-consumption surveys has revealed that income elasticities for many food products are even higher in rural areas than in urban areas. This suggests a further food demand boost as rural incomes increase. Nonetheless, currently the bulk of the purchasing power, especially for higher-value products, resides in the urban areas. Targeting these markets presents large opportunities for increased rural producer incomes, which in turn would stimulate rural demand for locally produced products and services.
- An expanding global demand for Agricultural products especially in fast-growing emerging economies, providing increased opportunities for West Africa's traditional and non-traditional agricultural exports. Prices for agricultural exports have been strong, and West Africa has potential to expand the volume and diversify the composition of such exports, including to Eastern Europe, India and China. While market entry barriers might be higher than on domestic markets, the advantage of exports is that higher prices for export crops do not necessarily imply higher costs for domestic consumers. Rather, the income generated from agricultural exports translates into increased demand for local farm and non-farm products and services, generating growth linkages.4
- » An improved Agricultural policy and incentive environment. The level of taxation on agricultural outputs has declined and price transmission from consumers to producers has improved over the last two decades. Moreover, the "rediscovery of Agriculture" by national governments and their development partners in the early 2000s and the CAADP process have

- strengthened policy processes and frameworks and raised Agriculture's profile at the national, regional and global levels.
- The emergence of more independent, dynamic stakeholder organizations, which enhance growth prospects. The growing democratization that began in the 1990s led to the emergence of more independent, grass-roots Agricultural professional organizations, such as producer and trader organizations. These organizations contribute to more rapid Agricultural growth in at least three ways. First, they offer expanded scope for collective action-providing critical goods and services to their members such as primary-product assembly, pooling orders for input purchases, and providing advisory services, in the process capturing scale economies for the smaller-scale members. Second, they are increasingly involved in policy debates and design, adding valuable insights about the nature of the constraints and opportunities facing actors in West African Agriculture. Third, through their national organizations and regional federations, they serve as a counterweight to government in defending their members' interests and as a force to pressure for the faithful implementation of announced policies aimed at boosting Agricultural growth.

But these opportunities are combined with new challenges for West Africa's agrifood systems stemming from:

An increasingly volatile international market environment, making long-term projections increasingly difficult. Factors such as climate change and increased links between financial, energy and Agricultural markets add to uncertainties about market trends. While most analysts expect higher world prices for agricultural products to prevail over the medium term, the longer term outlook remains uncertain. Amongst other factors, the future direction will depend on whether the generation and dissemination of productivity-enhancing technologies and sustainable natural-resource- management practices will prevail over the negative effects of climate change and a deteriorating natural resource base.

⁴ While diversification into export markets might have some short-term effects on domestic food prices if productive resources are shifted from domestic food production into export sub-sectors, there are also frequently positive impacts of export-crop production on domestic food production. These include improved access by farmers to key inputs, such as fertilizer and farm equipment, which can be used for production of both domestic food crops and export crops.

- » Increased competition in output markets. A number of large emerging economies such as Brazil have developed highly competitive Agricultural sectors that play increasing roles on Agricultural markets, worldwide and in West Africa. Higher agricultural commodity prices combined with expectations of future scarcities of food and natural resources have contributed to the mobilization of large sums of financial capital by traditional and non-traditional actors and to a surge of investments at all levels of the agrifood system worldwide. In the medium term, these investments will lead to production and productivity growth, furthering competition on agrifood markets and in accessing natural resources. Hence, West Africa needs to seize this historic opportunity of high prices and strong demand growth by making the necessary investments to address productivity gaps and other structural constraints that currently weaken its competitiveness. Current yield gaps and limited use of improved inputs and technologies are both signs of the weak competitive position of West African Agriculture but also of huge potential for improving this position.
- Growing competition among different actors and sectors for an increasingly stressed natural resource base, augmenting pressure on land tenure and water rights systems. This competition has been leading to more frequent, often violent, conflicts and discourages productivity-enhancing Agricultural investments. Competition for West Africa's agricultural land and water is also growing due to burgeoning interest in investing in West African Agriculture by new private-sector actors, including domestic investors, members of the diaspora and foreign firms. The heightened private-sector interest in investing in West African Agriculture has the potential to bring new capital, technologies and human skills to the region's agrifood system. It also, however, raises sensitive political issues about ownership and control in the sector and access to natural resources, especially land (often labelled as "land grabbing"). The latter may threaten livelihoods (particularly for women and pastoralists, who are amongst the first to lose land-use rights) and exacerbate conflicts

- unless transparent governance mechanisms and proper safeguards are put in place.
- » A persistently high share of food in total house-hold expenditures, rendering the majority of West Africans very vulnerable to food price increases. Hence, domestic agrifood systems and related policies face a dual challenge of harnessing the opportunities of urban food market growth for the benefit of broad-based growth while keeping food prices low through reduced production and marketing costs, especially for basic staples.
- \rangle A shifting political-economy equation towards consumers, especially those in urban areas, due to the economic and demographic transformations. In combination with the high share of food in the household expenditures, this shift implies that restricting food imports in order to stimulate regional production will likely become politically more difficult in the future. While the possible overvaluation of the CFA franc may justify some tariff protection of Agriculture in the WAEMU countries, the protracted negotiation of the ECOWAS Common External Tariff (CET) has shown the difficulties of increasing such protection. Since West African countries do not have the financial means to subsidise consumers and producers at the same time, trade policy measures that focus on reducing price volatility through safeguards rather than protecting producers permanently using fixed rates are also likely to be more feasible.
- **New York of Young people entering the labour market each year. In an era of globalization, with increasing exposure to digital media, rural youth are becoming more aspirational and mobile, with important implications for job creation and the agricultural labour supply. Given the widespread perception that farming is arduous and offers few pathways out of poverty, a growing share of rural youth prefers to migrate into towns and cities, seeking employment in the informal services sector. Although broader agrifood system development offers substantial scope for creating many productive

jobs, capturing that potential will only occur if the educational systems are reformed to provide young people with the skills needed to operate in a dynamic, modernising, privatesector-driven Agricultural economy. Hence, agricultural policies need to be coordinated closely with policies affecting education and skills development as well as broader economic policies including industrialization and small and medium enterprise (SME) development.

- An agglomeration of population and purchasing power along the coast, exacerbating intraregional imbalances and shifting consumers farther away from the traditional staple-food and livestock production basins in the hinterland. While this demand pull has led to intensification of farming and growing numbers of SMEs engaged in processing, storage, trade and logistics in peri-urban and urban areas, farmers in rural areas and inland countries are less able to respond to this growing demand, especially for bulky and perishable products, due to poor infrastructure and transport systems and inadequate information. Likewise, proximity to ports and major international transport hubs gives imports competitive advantages over domestic production from the hinterland. Hence, the state of the connecting infrastructures-roads, transport systems, marketing facilities and information - coupled with improved road governance and removal of nontariff barriers to intraregional trade, become crucial for the competitiveness of domestic production, vis-à-vis imports. Consequently, the nexus between agricultural policies, infrastructure and transport sector policies, spatial development policies, and trade policies - especially concerning regional integration – is becoming increasingly important.
- » An economic growth pattern driven mainly by natural resources and extractive industries renders the region vulnerable to international commodity price fluctuations. The huge growth in recent years in the region's capacity to rely on imports to help address the burgeoning regional food demand is to a large extent based on exploitation of non-renewable resources and

hence may not be sustainable if world prices for these commodities fall. Thus, policies need to focus on how to invest earnings from these non-renewable resources in order to increase productivity throughout the economy, including the agrifood system, rather than simply use them to finance growing food imports.

Persistent vulnerability to natural and humanmade disasters. West Africa has been fraught with recurrent natural and human-created crises and disasters over the past 50 years, which have led to severe food shortages and destruction of productive capacity in various countries. For example, the civil war in Côte d'Ivoire destroyed much of the country's livestock production infrastructure and greatly disrupted the economies of Burkina Faso and Mali, which were highly dependent on the Ivorian market for regional exports and on port services in Abidjan for their external trade. More recently, terrorist attacks in Mali and northern Nigeria and Ebola outbreaks in several countries have similarly disrupted agricultural production and regional trade. These risks and uncertainties are exacerbated by climate change, price volatility and policy volatility. Hence, the Agricultural growth agenda needs to be closely linked to the resilience agenda. ECOWAS and the African Union have the potential to play important roles in creating a more stable environment for Agricultural growth in the region not only through their support of CAADP but also through their peace-making, peace-keeping and emergency relief roles.

IV. How has the agrifood system responded to changing demand and market trends?

Consumer response

Overall, consumers' diets are becoming increasingly diverse at the national level but converging across the region. Analysis of food-balance-sheet data for the past 30 years shows that while differences across countries concerning food consumption patterns persist, at the national level food con-

sumption patterns are becoming increasingly diverse. The trend towards dietary diversification is particularly marked in the coastal countries and urban areas but is also spreading into the inland countries, smaller towns and rural areas. Factors driving this trend include migration, growing international and regional trade, climate-changeinduced modifications in local food production patterns, and foreign direct investment in food processing and retailing, resulting in increased availability of a broader range of food products. Converging trends across the region include (1) increased consumption of rice and wheat-based products, substituting for traditional cereals such as millet and sorghum; (2) strong growth of root and tuber consumption, especially of cassava and yams, which is gradually extending into the Sahelian countries; (3) increased pulse consumption, particularly of cowpeas, in several countries including Nigeria; (4) strong growth of per capita vegetable oil consumption; and (5) expansion of fruit and vegetable consumption. Similar growth trends apply to fish, poultry, dairy products, red meat and beverage consumption.

Demand for convenience in food preparation and consumption is a key driver underlying the evolving food consumption trends. Demand for convenience is fuelled by urban congestion and long commuting time and increased female employment outside the home, reducing the time available for food purchase, preparation and consumption. The demand for convenience is manifested in an increased demand for meals taken outside the home in various forms ranging from street foods to small informal restaurants ("bush canteens") to modern quickservice restaurants. While some of the convenience foods are based on imported raw materials (e.g. noodles, pasta, bread and biscuits, and, particularly, rice), there are also regional convenience foods based on cassava such as gari and attiéké. However, the rapid spread of fried and processed foods in large coastal cities such as Accra and Lagos raises nutrition and health concerns.

A further broad trend is increasing demand for quality food. This trend is driven by rising income and education levels and better access to information. Quality has several dimensions:

- » Nutritional quality and dietary diversity. With rising incomes, there is growing demand for higher-value foods, such as meat, dairy products, fish, and fruit juices. There is also increasing demand for healthful foods such as fruits, vegetables and vegetable oils with unsaturated fatty acids.
- Product homogeneity, freshness, shelf-life, packaging and presentation. For example, in the case of rice, the homogeneity of the product and the absence of foreign matter are key quality parameters. In the case of poultry meat, taste and freshness are important criteria differentiating domestically produced poultry from imported frozen product. In each case, some consumers are willing to pay more for quality.
- Food safety, which is often intertwined with nutritional quality in consumers' minds. As with other aspects of quality, the effective demand for food safety increases with disposable income but also with higher education levels and better access to information about food safety issues. Consumers are increasingly concerned about the safety of the food they are eating but have little information about it. Public foodsafety standards are just emerging, and their implementation is uneven, so consumers have little trust in them. Branded products of foreign origin are often perceived to be safer, giving them an advantage over domestic products.

The demand for healthy and nutritious food is often trumped by the need for convenience and the attraction to modern or Western lifestyles. This is evidenced by a preference, especially among young urban middle class and aspiring consumers, for branded packaged food products and Western-style quick-services restaurants offering fried chicken, French fries, and burgers. The sizeable advertising budgets of large food manufacturers and fast-food chains reinforce these trends and place smaller domestic producers at a disadvantage.

Retailer response

The response of retailers to the evolving demand has varied across different segments of the food retailing sector. Retailing in West Africa is still dominated by traditional marketing channels, including open markets, traditional wholesalers, neighbourhood stores and informal food vendors. In recent years, however, modern retailing enterprises (supermarkets and modern fast-food retailers) have grown in urban areas. Because little was known about the modern retailing sector, the AGWA study gave particular attention to its structure, how it has responded to the changing demand structure, its growth prospects and their implications for the broader agrifood system.

The traditional retailing system has responded to the evolving demand by greatly expanding both the number of retailers and the scope of their activities. Most striking has been the rapid expansion of street-food vendors, responding to the need of low-income urban workers for fast, convenient meals. Retailers have also expanded their sale of processed staples and imported canned and dry goods. Traditional open markets have struggled to cope with the burgeoning growth of demand, and are often characterised by crowded and unsanitary conditions. Urban congestion, weak public transport systems and erratic electricity service (which hinders the spread of refrigerators among consumers and hence forces them to shop frequently for perishables) have helped traditional neighbourhood retailers maintain a substantial share of the consumer market compared to larger modern retailers.

There are signs of acceleration of modern food retail growth, but its pace is difficult to predict. Despite the recent growth of supermarkets and quick-service restaurant chains and outlets in major urban areas, modern food retailing is still underdeveloped in view of the market size, urbanization levels and economic dynamism of these countries. Domestic, regional and international players are increasingly aware of these market opportunities, and many have ambitious growth plans. There are signs that the growth of modern food retailing might speed up considerably in view of increased dynamics of the sector over the past five years and the recent entry of regional and international players into both the modern grocery and food services sectors, particularly in Nigeria, Ghana, Côte d'Ivoire

and Senegal. The pace of growth and expansion will depend on overall economic dynamism in the region but also on the ability of investors to overcome the challenges related to the business and operating environments, such as access to finance and real estate, unreliable electricity, and underdeveloped domestic supply chains. Even in case of modest growth, development of domestic supply chains could enable domestic producers to access higher value market segments.

Agroprocessor response

Due to their varying size and organizational structures, agroprocessors diverged in their responses to the evolving consumption and market trends. The region remains characterised by a dichotomy between a large number of artisanal and informal agroprocessing firms and a smaller number of industrial-scale agroprocessors. The artisanal sector forms part of a social network economy that facilitates entry into the sector and enhances its resilience but also acts as a constraint for growth and formalization of enterprises. Nevertheless, the sector is an important part of the rural non-farm economy and generates employment and income, especially for women. It is also an important user of local farm produce and fabricates a diversity of inexpensive basic foods for the low-income market. On the other end of the spectrum, the largescale formal sector, often made up of firms that are parts of multinationals or domestic conglomerates, frequently relies on imported inputs such as wheat and milk powder to produce a range of products for both the mass market and the growing middle class. There is also some large-scale processing of export and industrial crops, most notably cocoa. Like in much of industry in sub-Saharan Africa, there have traditionally been relatively few small and medium-sized formal-sector agroprocessing firms, a phenomenon referred to as "the missing middle."

The large-scale processors that are oriented towards the domestic market have responded to the growing demand for more convenient foods by developing an array of packaged and processed products, such as instant noodles and breakfast cereals, which appeal to a time-poor and mobile population. They also capture growing demand for higher quality and more diverse food products, such as fruit-flavoured yoghurts, fruit juices, soft drinks. Due to their reputation and the use of strong brands, large domestic and international food processors are better positioned to instil consumer confidence in the quality and safety of their products. While initially their main focus was on the middle and upper market segments, this has changed gradually, and the use of small package sizes and wide distribution networks make their products also available to lower-income mass markets.

The artisanal and small-scale sector has been dynamic in producing a large range of low-cost products with varying quality and food safety levels to the low-income population. These include convenience foods such as gari and attiéké. Agroprocessing SMEs in the formal sector are mainly targeting low- and middle-income customers. Some have successfully created new food products in response to growing demands for convenience, improved hygiene and health. Many such products, including packaged gari, bean and maize flour, pounded yams, and instant fufu, are based on domestic raw materials. Compared with large processors, though, SMEs face tougher challenges with regards to access to finance, technology, marketing, distribution networks and technical and managerial skills. Their main comparative advantages lie in their better knowledge of local markets and food cultures and their greater flexibility and ability to create localized niche markets. However, in order to consolidate and expand their market positions, improving product presentation and packaging and generating consumer confidence in product quality and safety are essential.

Production and value chain response

West Africa's agricultural production performance over the past 30 years has been mixed. In general, production of basic food staples has shown the highest increase per capita. Some crop and livestock products with the most dynamic markets, such as meat, dairy products, rice and vegetable oils, grew much less and were not able to meet increasing demand. Maize, yams, cassava and cowpeas exhibited the strongest growth (3% per capita

per year and above), followed by oil crops and vegetables, at annual per capita growth rates of 1% to 2%. Per capita production of millet, sorghum, rice and fruits increased by less than 1% annually for the region as a whole, while that of meat, milk and sugarcane actually declined over the last thirty years. Concerning livestock products, pig meat had the highest annual average growth rates per capita, at 2%, followed by sheep and goat meat, averaging 1.6%. In contrast, beef and milk production declined on a per capita basis.

Agricultural sector growth was generally far below the 6% CAADP target. Despite the strong output growth, agricultural sector growth rates have not been rapid enough to allow West African countries to meet their poverty reduction goals. Agricultural value added only grew by 3% on average per year during 1990-1995, followed by an average annual growth rate between 4 and 5% since then. While 7 of the 15 ECOWAS countries achieved CAADP's 6% target agricultural growth rate in 2009, only 4 were able to maintain that rate in 2010. Yet to achieve the CAADP poverty-reduction goals, the agricultural growth rate needs to exceed 6% every year, while a characteristic of most West African countries is strong year-to-year fluctuations in the growth rate, linked in part to variable weather conditions.

Productivity growth has been low and inconsistent. Agricultural growth in the region has been driven largely by area expansion, whereas land and labour productivity increases have been modest, with yields remaining well below global benchmarks. This has been in sharp contrast to other regions of the world, where yield increases have been the main drivers of output expansion. For instance, the area planted to cereals increased by 3.9% per annum while yields increased by less than 1.0% annually between 1980 and 2009. With the exception of maize, for which average yields grew annually by 2.2% between 1980 and 2009, yields of other food crops increased only modestly or even stagnated. The performances of the cattle and poultry sub-sectors have been even worse over the last 30 years, with average production per animal declining for beef (-0.9%/year) and stagnating for the poultry and dairy sectors.

Nonetheless, in the most recent period (2008-2012), there have been some modest increases in region-wide yields, particularly for some staple crops. These increases may reflect greater access of farmers to fertilizers and improved seeds as a result of major agricultural intensification efforts launched in response to the 2008 spike in world food prices and the more favourable price incentives during this period.

These regional averages mask wide variations among countries. This applies both to productivity levels and trends. For certain crops, average yields may differ across countries by up to a factor of five, reflecting vast differences in production systems, access to inputs, varieties and farmer incentives. These disparities across countries suggest that there is substantial scope for improving yields in low-performing areas by learning from successful approaches in neighbouring countries. Important differences in productivity trends between countries can also be observed. For example, while yields of Nigerian and Guinean rice declined between 1980 and 2009, average paddy yields in the other big rice producing countries of Côte d'Ivoire, Mali, Senegal and Sierra Leone all increased substantially; these figures conceal even more pronounced productivity success stories in certain irrigated areas in these countries (e.g. the Office du Niger in Mali and the Senegal River Valley in Senegal). Similarly, cassava yields have increased much more sharply in Nigeria and Ghana over the past 20 years (in response to the spread of improved varieties developed by IITA) than in several other coastal countries such as Sierra Leone and Liberia; and until the mid-2000s, the performance of the cotton sector in Francophone West Africa was much stronger than in the Anglophone countries.

Despite the modest overall performance, there are also some important success stories of production and value chain responses. Examples include the Ghanaian cocoa sector, the performance of the cotton sector in the Francophone countries from the 1950s through the 1990s, and strong productivity increases in roots and tubers, notably cassava. Moreover, recent initiatives to improve domestic rice value chains in Senegal through coordinated

efforts among farm organizations, the private sector and the government also show promise.

International and regional trade response

The production trends are also confirmed by trade data, which reflect the competitiveness of West African Agriculture and its ability to respond to demand trends both on domestic and export markets.

The agricultural and food trade balances for the ECOWAS region have turned negative since the beginning of this millennium. While agricultural and food exports grew quickly, imports grew even faster. Hence, only five West African countries remained net agricultural and/or net food exporters over the period 2006-10. Côte d'Ivoire is by far the region's largest agricultural net exporter. The net trade deficit for food products for the region as a whole averaged US\$4 billion in 2006-10, compared with a net trade deficit for all agricultural products of US\$2.7 billion. Nigeria had the largest agricultural and food trade deficit, followed by Senegal. This trend towards growing food imports coincided with a period of strong growth of merchandise exports, which has led to a greater capacity of many countries to import. Nevertheless, there are concerns about the sustainability of this import capacity, as it is based heavily on the export of non-renewable resources.

A limited number of food commodities account for the bulk of the increasing food trade deficit. Cereals, especially rice and wheat, are by far the leading item, accounting for 41% of the value of food imports in the period 2006-10, followed by vegetable oils (13%), fish (11%), dairy products (9%) and sugar (9%). Together these five commodity groups account for 83% of the value of food items imported by the region. Vegetable oil imports have grown particularly rapidly, rising from seventh place in 1986-90 (4% of food imports) to second place in 2006-10 (13% of food imports).

Despite growing food imports, self-sufficiency ratios (SSRs) for many basic food staples have declined only modestly. Despite the rapid growth of cereal imports, the dependence of the region on the world market for cereals has only increased

modestly from 12% during the second half of the 1980s to 20% during 2006-10. This increase in import dependence is mainly due to rapid demand growth for rice and wheat, whereas the region has remained self-sufficient in coarse grains (millet, sorghum and maize). Regional SSRs declined for certain other basic food commodities, particularly milk, palm oil, poultry meat and sugar. For wheat, milk and sugar, the region has always depended on imports to meet a large share of its needs, but further reductions in SSRs have been experienced in recent years as per capita consumption of these goods has expanded. As in the case of cereals, there are large differences among countries regarding their degree of dependence on imports for these other basic food commodities.

West Africa's agricultural exports grew strongly but less than those of the rest of the world. The region's agricultural exports grew by 6.2% per year on average during the 1996-2000 to 2006-10 period, some 20% less than the export growth rate of the world as a whole (7.7%). For a number of commodities, West African exports have grown faster than those from the rest of the world⁵, whereas those of other important exports such as fish and cotton lint have fallen or remained stagnant during this period. Cocoa has been a remarkable success story, and the region has retained its dominant world market share. On the other hand, a major challenge will be to try to revive some of the region's export value chains whose performance has lagged in recent years, such as cotton and coffee. Another challenge is to incorporate greater value addition into exports. This is being done successfully in cocoa, but has not extended to many of the other exports except for a few high-quality horticultural crops.

Agricultural exports remain highly concentrated in a few countries and commodities. Cocoa-related export commodities alone constitute over half of the region's agricultural exports in value terms, and, if combined with textile fibres and natural rubber, the share increases to over two-thirds. However, the concentration of exports in these three commodity groups was even more pronounced in the

past, as the region has experienced some modest diversification of agricultural exports over time. A handful of countries accounts for nearly all of the key exports, with Côte d'Ivoire being by far the leading exporter of several commodities such as cocoa products, natural rubber, coffee, cashews, palm oil and bananas. Again, there is a slight trend towards geographic diversification of exports, with cocoa and rubber plantations currently being expanded in a number of coastal countries. Major export commodities that are produced by a broader number of countries include cotton lint, fish and tobacco. The region also boasts some remarkable successes in entering higher value niche markets, such as green beans, sheanuts, cashews and fruit.

Despite persistent barriers, intra-regional trade flows have increased. Long-distance trade flows, e.g. between Sahelian and coastal countries, have a long tradition and are often engrained in social and ethnic networks. Livestock, cereals and cowpeas are exported from the Sahel to the coast; some cereals also flow from coastal states northward; and tubers, fruits and vegetables of the Guinea savannah zone are brought into the cities in coastal areas and Sahelian countries. These trade flows have increased substantially over the last decades, driven by urbanization and migration. The real size of this trade is unknown, however, since official trade data only capture part of the actual trade flows. Major constraints to further expansion include poor road infrastructure, rules that restrict competition in the trucking industry, administrative barriers, difficulties and risks of transferring funds across countries with different monetary systems, growing insecurity and rent-seeking by police and border officials.

V. Why has supply response lagged behind the growth of demand?

The mixed overall performance of West African Agriculture with respect to production and productivity and the erosion of competitiveness are due to a host of structural problems, many of which have been further aggravated by inappropriate policies. In addition to the disincentives caused by inconsistent government policies and interventions,

⁵ These include cocoa paste, powder and cake, cashews, sesame seed, sheanuts, natural rubber, mangoes,bananas, papayas, sorghum, and cassava products.

structural problems related to market access, risks and uncertainties, and access to inputs, services and technologies reduce the incentives to undertake productivity-enhancing investments in farming and related upstream and downstream segments. While many constraints and possible solutions are value-chain specific, there are major generic constraints cutting across most agricultural value chains.

Policy volatility and missing investments in critical public goods

Although macro and sectoral reforms implemented during structural adjustment have generally resulted in higher farm-gate prices, these reforms were paralleled by a decline of investments in key public goods - research, extension, rural education and vocational training - and a retreat of the donor community from Agriculture. Due to the poor state of rural infrastructure, a generally weak business-enabling environment, high risks and uncertain profitability, the private sector has often been slow in taking over support-service functions, such as marketing, input supply and finance, from which the government disengaged during structural adjustment. Moreover, government policies have often been erratic, characterised by ad hoc market interventions through trade restrictions, subsidies or short-lived Presidential Initiatives aimed at specific value chains. This policy volatility, combined with poor implementation of announced policies and programmes and frequent policy reversals, exacerbated by a poor business regulatory environment, have generated further market uncertainty and discouraged private-sector investment, including by farmers. In turn, the slow and uneven private-sector response has nurtured governments' latent mistrust about the willingness and ability of the private sector to engage, prompting further rounds of government interventions.

> Market access and infrastructurerelated constraints

Underdeveloped roads and transport systems remain a key market access constraint. They are also an important disincentive for producers to increase production and adopt productivity-enhancing tech-

nologies, as costly transport directly affects the prices producers receive for their outputs and pay for their inputs. Market access costs are high due to geographic distances, the spatial dispersion of producers, small volumes of marketable surplus and the poor state of rural roads. Policies that limit competition in the trucking industry result in transport prices in West Africa that are much higher than in other developing regions and constitute major constraints to Agricultural competitiveness. These constraints not only affect farmers and traders but also agroprocessors (increasing their raw-product assembly costs) and providers of services such as finance, extension, and veterinary medicine. In urban areas, urban congestion and the poor development of public transport systems have limited the growth of large-scale modern retailing.

Despite improvements in main trunk roads, rural communities continue to have by far the lowest accessibility to all-season roads in the developing world. West Africa's quality of transport services, as measured by the Logistics Performance Index, is lower than in other African regions and the rest of the world. While important investments have been made in recent years, especially in the main international corridors and main trunk roads, road density in West Africa remains low compared to other developing regions.

Market infrastructure and wholesaling are struggling to cope with demand growth. The state of physical market infrastructure reduces the efficiency of the marketing system in performing key functions such as product aggregation, storage, sorting and grading of agricultural produce for different market segments, as well as the disposal of sewage and waste. This applies to wholesale and retail market infrastructure, abattoirs, storage (including cold storage) and equipment for other post-harvest operations such as cleaning, drying and packaging, both on and off farm. Quality deterioration and spoilage throughout the marketing system is a further serious problem, especially of perishable products such as fruits, vegetables and animal products. Moreover, poor hygienic conditions in markets can cause threats to human health as well as environmental hazards. This infrastructure gap and the attendant

underdevelopment of the wholesaling industry is a particular constraint for agroprocessors and retailers. They face high transaction costs for product aggregation, quality control, and sorting into batches of homogenous quality. Indeed, the largest problem facing agroprocessors is securing a reliable supply of locally produced agricultural products, particularly staples, of consistent quality and quantity. The most successful industrial agroprocessors that target the domestic market have been those that have relied on imported inputs, such as wheat, milk powder and fruit concentrates to produce juices.

Unreliable electrical supplies (a particularly severe problem in Nigeria) constrain the ability of agroprocessors to operate their plants at capacity, frequently forcing them to invest in expensive generators that drive up their costs of production. Similarly, small-scale processors have to turn to diesel or petrol-powered mills that are more expensive to operate than electrical ones. An unreliable power grid also limits the development of cold chains, thereby constraining the marketing of perishable products, for which demand is growing rapidly and whose value chains have the potential to generate substantial employment.

Many value chains are fragmented, with limited vertical and horizontal coordination among different actors, including weak links with service providers. Loosely coordinated value chains frequently are characterised by poor transmission of incentives from consumers and agroprocessors to farmers concerning demands for specific product qualities, particularly regarding cleanliness, safety and consistency of supply. The weak transmission of information regarding the willingness of consumers and processors to pay for different product qualities is due to:

- Lack of grades and standards that reflect the nature of demand in the market.
- The low volume of marketed surplus per farm, which makes product segregation by quality costly for traders; hence, products of differing qualities are frequently pooled in the marketing system, which dilutes any incentive to award producers of high-quality products.

Meeting market demands in terms of quality, quantity and consistency of supply often requires specialized investments and skills that are beyond the reach of many smallholders and traders.

Elevated risks and uncertainties

Actors throughout the West African agrifood system face high production and market risks. These risks arise from weather variability, pests and diseases as well as price and policy volatility. Strong fluctuations in production, combined with weak spatial market integration and low volumes of marketed output contribute to high seasonal and inter-annual price volatility. Erratic government interventions and spill-over of international price volatility further complicate the picture. The uncertain availability, timeliness and quality of inputs, advisory services and finance add further risks. Combined, these risks and uncertainties act as strong disincentives for farmers to invest in productivity-enhancing technologies and for other private actors to invest in input supply, support services, marketing and processing.

West African farmers and other value chain actors generally lack access to improved risk-management products and services. These include agricultural insurance, forward contracting and hedging. Even more basic yield-stabilising technologies such as improved soil and water management, irrigation, improved seeds, plant protectants and veterinary drugs are only available to a minority of farmers. In the absence of such products and services, farmers' main response to the various risks and uncertainties is to diversify their limited resources into many different activities. The resulting scales of operation are often too small for adopting improved technologies and lead to higher per-unit marketing costs. Processors' and retailers' response to erratic domestic supply is to revert to imports.

Contract farming and outgrower schemes can mitigate some of the aforementioned risks at farm level, but even agribusiness needs better tools to manage these yield and price risks. Moreover, contract-enforcement risks limit the willingness and ability of agribusiness to engage in and expand contract farming, especially through resource-providing contracts.

Insecure land tenure and water rights undermine incentives to invest in land improvements and irrigation and to attract outside capital into farming. Moreover, conflicts over land and water destroy social capital and can worsen gender inequality, especially in areas with the highest production and market potential. Population growth leads to land fragmentation and proliferation of very small farms unable to feed the families that cultivate them, let alone commercialize. In addition, the lack of secure land records precludes local governments from establishing land taxes that could provide the fiscal basis for provision of many of the critical supporting services needed by rural communities, such as primary education, health, and extension. In urban areas, agroprocessors and modern retailers report that difficulties in obtaining clear title to land has often been a major constraint to their expansion.

Weak access to improved inputs, technologies and support services

Uneven access to inputs, technologies and support services between men and women constrains productivity growth. Cutting across the discussion below of all the factors limiting productivity growth of West African Agriculture are gender considerations. Social conventions in many countries restrict women's access to factors of production and services such as improved land and credit that are critical to productivity growth. Extension services often are predominantly staffed by men, and extension messages may not be oriented to women's concerns. These restrictions not only bias the benefits of growth away from women; they also reduce overall productivity growth by limiting the growth-enhancing resources available to women, who represent a large proportion of the actors in the agrifood system.

Low and inconsistent use of improved inputs such as seeds, fertilizer, pesticides and veterinary drugs remains the single most important proximate cause of low productivity in West Africa. Overall, the use of improved seeds has remained marginal, average fertilizer use per hectare is extremely low, even

compared to other parts of Africa, and the use of farm power, including mechanization, in farming and post-harvest operations is extremely limited.

Both demand-side and supply-side constraints hinder the development of input markets. Demand is limited by uncertainty about profitability due to production and market risks, concerns about the quality of inputs, high input prices and lack of financing. In addition, farmers' knowledge gaps about the appropriate use of inputs such as fertilizer, pesticides and veterinary drugs reduce their effectiveness. Low and inconsistent demand slows the development of private-sector-based input supply chains, which are further constrained by high distribution costs, insufficient access to finance and, in some cases, government interventions.

Fertilizer and equipment are mainly imported, and farm-gate prices are high due to high transport and distribution costs, small volumes, and sometimes inefficient government tendering processes. There are huge economies of scale in the production and procurement of these inputs which, given the small market size in most ECOWAS member countries, lead to a limited number of importers in each market, constraining competition. Effective regional harmonization of regulations could enhance competition and reduce costs. While input subsidies can provide some temporary relief, fiscal costs have proved to be high, and schemes have been fraught with high leakage and operating costs and have sometimes undermined private input supply networks.

Agricultural research systems are underfunded and fragmented. Agricultural research is critical for generating new technologies that enhance and stabilize yields while using scarce inputs and natural resources in the most efficient and sustainable way. Given the need for adaptation to local agro-ecologic and soil conditions, importing technologies works less well in agriculture than in many other industries. The comparatively large number of staple crops, diversity of farming systems, and small national markets make technology development in West Africa more challenging than in other regions. Even though a large number of studies have provided evidence

about the high rates of return to public investments in agricultural research and development (R&D), in West Africa R&D has been severely underfunded for decades, and funding levels are only slowly picking up. In addition, West African research systems face a number of structural constraints including an aging pool of researchers and difficulties in attracting and maintaining new and high quality human resources. Moreover, there are important economies of scale in research and development, limiting the effectiveness of small and fragmented research systems, especially in small countries.

Extension systems are frequently broken. Extension and advisory services are a key link between generators and users of research and technology. Following structural adjustment and the disenchantment with the Training and Visit Extension approach, funding for extension across the region dropped. Since then, countries have been experimenting with a number of different approaches, but no widespread consensus has emerged about which methods work best. In addition to underfunded public extension systems, advisory services are provided by a number of actors including NGOs, donor-funded projects, and in a few cases, private agroprocessors and input suppliers. There is little coordination of programmes across actors. The scale of operations of the different advisory service providers varies widely. Non-state providers typically have small numbers of agents, but more operating funds per agent, while the public services are much larger but often with few operating resources. The effectiveness of the extension system is further curtailed by the limited research activities in the region (and hence, limited new technologies to extend), the poor rural infrastructure and the low level of training of many of the agents. Business advisory services and financial literacy training are even less available.

Weak systems of Agricultural education act as a broad constraint throughout the agrifood system. These weakened systems affect the ability of farmers and SMEs to adopt technologies, innovate and respond to market opportunities. They also undermine the performance and effectiveness of support services and organizations, be they public,

private or civil-society based. The weak humancapital base ranges from low levels of literacy among farmers to inadequate numbers of welltrained personnel with skills in such areas as food science and technology, packaging, and marketing. The rarity of employees with such skills has been an important constraint to the expansion of agroprocessing.

Limited access to and high costs of finance slow down investments and technology adoption. The aforementioned constraints related to market access and infrastructure, production and price risks, technologies and skills render the provision of financial services to farmers and other agricultural value-chain actors risky and costly. The limited availability of risk-management instruments, widespread collateral constraints, problems of contract enforcement and a poor loan repayment culture further reduce the appetite of the financial sector to venture into agricultural finance. Efforts to circumvent the underlying structural problems through public agricultural development banks and subsidised credit lines have proved unsustainably costly and inefficient. Some of the dynamic decentralized financial networks in the region have been successful in providing finance to farmers and other value-chain stakeholders, even though meeting only a fraction of the demand. Agribusinesses, traders and input suppliers also play an increasing role in value-chain financing, either by directly providing financing to farmers or buying agents or by facilitating bank financing to them through establishing firm purchasing contracts. Historically, agricultural finance has been more successful in organised export value chains such as cotton. In a liberalized environment, side-selling is a constant threat and more easy to control where product characteristics such as bulkiness or perishability reduce side-selling options or where buyers serve niche markets. Other value-chain finance instruments such as warehouse receipt financing, receivables financing, and leasing are of growing importance. Additional financial services such as savings and payment services are critically important, and their future growth may be fostered by the potential rapid expansion of cell-phone-based banking and money-transfer services in the region.

VI. Evolution of domestic and regional Agricultural policies

From resource extraction to engine of growth

Agricultural policies have evolved dramatically over the past 50 years in response to the changing circumstances facing the sector and the evolving policy objectives of West African countries. Policies immediately after independence focussed primarily on resource extraction from the agricultural sector (especially export agriculture) in order to finance investments in other sectors. From the mid-1980s through the late 1990s, as countries went through structural adjustment, there was a general reduction of explicit and implicit taxation of agriculture and a move towards a more tradeneutral policy concerning export crops relative to import-substituting food commodities. On the other hand, the budget austerity that accompanied the structural adjustment programmes led to a decline in investments in key public goods such as rural infrastructure and agricultural research.

The "rediscovery" of Agriculture and the rise of CAADP since the early 2000s have increased the prominence of Agricultural policy, both nationally and regionally. It was only at the beginning of the 21st Century that African governments and their development partners "rediscovered" Agriculture, epitomised by the launching of the African Union's Comprehensive African Agriculture Development Programme (CAADP) in 2003 and the gradual rebound of government budget allocations and official development assistance to agriculture. Several countries prepared new agricultural strategies or orientation laws and, for the first time, regional agricultural policies were prepared by WAEMU (in 2001) and ECOWAS (in 2005). The general trend has been towards sector-wide approaches aimed at planning and implementing agricultural policies and investments in a more coherent way.

CAADP design and implementation

The 2008 food crisis strongly influenced the design of ECOWAP/CAADP programmes. Although launched in West Africa in 2005, the CAADP

process in the region only gained momentum after the food price crisis in 2008. The food price crisis had positive and negative effects on the agricultural policy agenda. On the positive side, it acted as a powerful reminder of the importance of investing in Agriculture and prompted the rapid completion of the design of national CAADP programmes. Hence, all 15 ECOWAS countries had their CAADP Compacts signed between 2009 and 2011, and two thirds had prepared their National Agricultural Investment Plans (NAIPs) by the end of 2011.

On the negative side, many governments reacted in an ad hoc and uncoordinated manner to the food price crisis, and some of the measures adopted were inconsistent with the longer-term goals of advancing regional integration and addressing long-term structural problems. Several countries aimed for self-sufficiency in cereals, particularly rice, as opposed to ECOWAP's goal of promoting food sovereignty at the regional level. Export bans and temporary waivers of tariffs and import taxes, aimed at protecting urban consumers, undermined producer incentives and efforts to advance regional trade integration and policy coordination. On the production side, governments designed crash programmes to expand cereal production rapidly and increase national self-sufficiency levels. These programmes focused heavily on farm-level production, with weak integration of upstream and downstream segments of the value chains and heavy reliance on input subsidies.

The CAADP process has had several positive outcomes, making important contributions to improved, more coherent and inclusive policy processes.

- It has been successful in giving agricultural development greater visibility on the political agenda of many of the countries and moved them towards more sector-wide and regionally consistent agricultural policy and programme development.
- It helped to mobilize and coordinate many donors' support around a common set of objectives as laid out in the national agricultural investment plans (NAIPs) and ECOWAS's Region-

al Agricultural Investment Plan (RAIP). The ECOWAP regional programme and WAE-MU's Politique Agricole de l'Union (PAU) also represent important efforts to deal with issues that can be most effectively addressed at the regional rather than national level.

- ECOWAP also constitutes an important step towards harmonising the actions of various intergovernmental organizations in the region, which have been characterized by a proliferation and duplication of policies and programmes.
- In many cases ECOWAP/CAADP processes involved a broader group of stakeholders than had previously participated in the formulation of agricultural policies and programmes.
- By frequently bringing together the national CAADP teams for joint workshops during the process of developing the NAIPs, the ECOWAS Commission helped to create a community of practice across the countries that shared experiences and learned from each other. This not only improved individual NAIP design but also lays a foundation for on-going learning from each other as the national and regional programmes are implemented.

The CAADP process has also had important limitations and challenges

Many NAIPs were built around emergency food production programmes. The NAIPs are heterogeneous in the relative priorities given to different subsectors, activities and value-chain segments. In general, they do focus on commodities where demand is growing rapidly, even though livestock often received comparatively few resources. However, the timing of their design in the aftermath of the food price crisis is reflected in their structure and the relative importance of different programme components. Hence, in several cases NAIPs had to be built around emergency programmes launched in response to the food price crisis that absorbed sizeable financial, institutional and human resources, which were consequently unavailable for longer-term structural investments and policy reforms.

Most NAIPs focus primarily on farm-level production. Although most NAIPs mention the need to develop the entire value chain, the bulk of them devote the vast majority of their funding to farmlevel activities, largely through input subsidies and irrigation development. Investments in marketing (particularly the development of improved food wholesaling systems) and processing, food safety, research, extension, and human capital development, all of which will be increasingly critical for a successful structural transformation of the food system, receive relatively little emphasis. Many NAIPs emphasize the need for capacity development, with a strong focus on farm organizations and inter-professions but devote far fewer resources to the capacity-strengthening needs of other agrifood-system stakeholders such as SMEs in processing and marketing. The same applies, with some exceptions, to government institutions charged with programme coordination, implementation and monitoring. There is also relatively little explicit articulation, at both the national and regional levels, between agricultural investment programmes and industrial investment programmes, which generally include a focus on agroprocessing, nor with programmes aimed at improving rural electrification. While most NAIPs also recognize the critical importance of providing more secure land tenure and water rights in stimulating sustained and equitable Agricultural growth, in most cases the links between the investment programmes and efforts to strengthen land and water rights are not well spelled out.

Most of the NAIPs set extremely ambitious production goals. While agricultural growth rates have clearly improved in recent years, the average growth rate targets for CAADP mark a very strong break with the historical pattern. Setting ambitious targets can be part of a strategy to mobilize increased efforts to boost production, but there is a danger that setting overly ambitious targets can create unrealistic expectations among African governments, donors, and the general public. The expectations, if unmet, can in turn lead to disillusionment with an agriculture-led development agenda, engendering yet another set of policy reversals. Moreover, the setting of these very ambitious production targets had major

implications for the structure of public spending on agriculture towards measures to boost production quickly at the expense of longer term investments addressing structural constraints.

CAADP's large funding gaps raise questions about who owns the programmes. Although CAADP is touted as an African-led, African-owned initiative, the proposed CAADP investment plans for West Africa all have very large funding gaps that the countries and ECOWAS are asking external donors to cover. This raises a question of whether the proposed programmes have a realistic chance of being implemented at the scale they have been planned. Even if they are funded, if anywhere from 60% to 90% of a programme is paid for non-Africans, it is reasonable to ask who really owns the programme. ROPPA has complained that the CAADP agenda has been increasingly captured by outsiders, but this may be an inevitable consequence of proposing overly ambitious programmes that are highly dependent on external funding.

Implementation of policies and programmes remains the key challenge. In the end, Agricultural policies are effective only if they can be implemented, and West Africa faces important challenges in strengthening the capacities and incentives of individuals and institutions charged with policy implementation. Available data on the level of agricultural expenditure suggests that only a minority of countries meets the 10% budget target laid out in the Maputo Declaration. Furthermore, for many countries there is no clear evidence of a consistent increase over time in the budget share going to agriculture. For the 12 ECOWAS countries for which data are available for the period 2003-09, the share of the budget going to agriculture increased in five and fell in seven during this period. Moreover, some Sahelian countries had much higher agricultural budget shares prior to CAADP than afterward. Hence, the increased rhetorical attention to Agriculture in the post-2000 era, including the CAADP period, has translated into increased relative budget allocations to agriculture in only a minority of ECOWAS countries.

Improving the quality of spending is paramount. There are often significant differences between the funding allocations in sector budgets and NAIPs and the actual distribution of spending across sub programmes and purposes. Unfortunately, public expenditure reviews on agriculture are only available for a few countries to assess actual expenditures. For example, while Burkina Faso and Mali generally exceeded the 10% budget target throughout the 2000s, they allocated only 5% or less of their total public agricultural spending to agricultural research and under 2% to extension in 2009. Payments to producers (largely subsidies on capital and seasonal inputs) absorbed the largest share of any item in the agricultural budget (33% in Mali and 27% in Burkina Faso). While farmlevel capital investments certainly contribute to growth, one can pose the question of whether the relative allocation of resources and farm level subsidies versus research and extension is likely to lead to the long-term sustained agricultural growth rates and structural transformation of the agrifood system called for in the NAIPs.

The importance of intra- and intersectoral policy coordination has been recognized, but implementation remains a challenge. The RAIP and some of the NAIPs recognize that Agricultural development transcends the domain of ministries of agriculture and thus requires coordination on policies and investments across sectors. Coordination mechanisms involving different government agencies and non-state actors are usually part of the implementing structure of the plans. The effectiveness of these mechanisms in practice remains to be tested. At the same time, in addition to CAADP, the food price crisis triggered the proliferation of other initiatives aimed at addressing areas that are deemed under-emphasised or missing in CAADP compacts and NAIPs, such as nutrition, agribusiness and resilience. Most of these initiatives are driven by external stakeholders, with their own objectives, constituencies and funding sources. While they are supposed to be aligned with CAADP, in practice coordination and alignment proves challenging, given the limited human and institutional resources and implementation capacity.

VII. Evolution of trade policies

WAEMU and ECOWAS have made important strides in fostering greater regional Agricultural integration. ECOWAS's integration agenda focuses on creating a customs union, which implies (1) creation of a free-trade area within the Community (via the ECOWAS Trade Liberalization Scheme, or ETLS) and (2) a common trade interface with the rest of the world via a common external tariff (CET) and accompanying safeguard measures. ECOWAS also envisions becoming a full economic union with a common West African currency by 2020.

The adoption of the ECOWAS Common Agricultural Tariff is an important step forward. The adoption of the CET in 2013 was an important achievement, although it is not scheduled to enter into effect until 2015. The ECOWAS CET represents an expansion of the WAEMU CET to include a new, higher fifth tariff band (at 35%), compared with a maximum tariff rate of 20% under the WAEMU structure. Reaching agreement on the CET was long and contentious, as some member states, such as Nigeria, wanted a higher level (50%) for the fifth band and inclusion of a broader array of products (such as rice) within it. There were particularly strong debates about the tariff rates for rice, sugar, and palm oil, reflecting differing views among member states and among other stakeholders regarding how to balance farmer, agroprocessor and consumer interests. In the end, the fifth band covers 2% of total tariff lines and is heavily concentrated on meat products (including poultry), a few fresh and processed horticultural products, processed cocoa products, key vegetable oils and products derived from them (mainly soaps), and fabrics. Like most tariff schedules, the CET generally gives higher protection to semi-processed and processed products than raw materials, with the exception of a few sensitive products like meats.

The impact of the Economic Partnership Agreement (EPA) with the European Union is uncertain. In 2014, after 12 years of negotiations, ECOWAS and the European Union signed a West-Africawide EPA. The agreement will open, over a period

of 20 years, 75% of West Africa's market to duty-free import of goods and services of EU origin. In return, it immediately allows 100% of West African goods and services duty-free access to EU markets if they meet EU quality standards. How this agreement will affect West African Agriculture will depend, among other things, on: (a) how well West African products will be able to meet EU quality standards; (b) whether EU Agricultural products that benefit from production subsidies will be allowed duty-free access to the West African market; and (c) the cost structure of West African agroprocessors compared to their EU counterparts.

State-sanctioned measures, rent-seeking and structural constraints continue to hinder effective regional integration. Despite substantial progress in improving regional integration since 1975, effective implementation of regional agricultural trade policies remains a major challenge. Progress to date on the ETLS has been slow and incomplete, and the CET was adopted only in October 2013, 17 years after member states agreed to establish it. Constraints to implementation of the ETLS have included state-sanctioned measures (e.g. trade bans), rent-seeking (e.g. roadblocks) and structural characteristics of the economy, such as the rules governing truck transport that restrict competition.

Lack of harmonization of grades and standards, VAT measures and exchange rates also limits regional trade. Progress on harmonization in these areas-important steps in creating an effective regional market - has been slow, particularly between WAEMU and non-WAEMU countries. Envisioned movement to an ECOWAS monetary union has been stymied by lack of progress by the non-WAEMU countries in achieving any sort of exchange-rate linkage. The persistence of multiple independently fluctuating exchange rates in the region makes implementation of some of the planned safeguard measures problematic. A unified West African currency, however, would likely not be linked directly to the Euro, and such delinking for the WAEMU countries would require substantial macroeconomic adjustments on their part.

Implementing the proposed ECOWAS safeguard measures will be no easy task. The CET is to be accompanied by safeguard measures aimed at dealing with price volatility and import surges. All these measures are designed to have automatic triggering mechanisms based on objectively determined measures in order to avoid the ad hoc and unpredictable nature of many trade policy measures adopted by West African countries in the past. However, these mechanisms are complex, and this complexity threatens successful implementation of the programme. Furthermore, while the CET is to be applied regionally, the safeguard measures are to be triggered by conditions facing individual countries, which could create different levels of protection among member states and thereby induce smuggling.

Aligning incentives among member states will be critical to the effective implementation of ECOWAS trade measures. As with other policy measures, the effectiveness of regional trade policies depend on how well they are implemented. The past uneven track record concerning the implementation of key community provisions and protocols raises doubts not only about implementation capacity, but also the extent of political commitment of different member states to these regional agreements. In practice, such regional agreements have been implemented to the extent that they have been in line with national priorities and short-term political needs. Especially since 2008, national responses to the food price crisis have been uncoordinated and mainly driven by national short-term goals.

VIII. The way forward: major design principles for more effective Agricultural policies

Six broad principles should guide Agricultural policies in the region:

The diversity of West African agrifood systems requires a differentiated set of policies. A one-size-fits-all approach to policy is likely to fail. Levelling the playing field between food system actors of different sizes, and special

support to women and youth are cross-cutting policy priorities, while linkage opportunities with larger food systems stakeholders with transformational potential should not be dismissed.

- 2. Agrifood system interventions need to be based on a firm understanding of the rapidly evolving nature of consumer demand to identify investment opportunities for different food system stakeholders and guide priorities for supporting public policies and investments.
- 3. Improving productivity throughout the agrifood system is the only sustainable way to meet both consumer and producer needs simultaneously. Rather than a simple replication of a "Green Revolution", a combination of sustainable intensification, climate-smart agriculture and inclusive-value chain development is needed.
- 4. Enhancing value addition, in its various forms, is key to capturing more lucrative markets and raising incomes in the agrifood system. This requires an enabling investment environment, improved market and transport infrastructure, and strengthened stakeholder organizations, from farmers to consumers.
- 5. West African Agriculture can only be globally competitive in a wide range of products if there is greater regional integration.
- Agricultural productivity growth needs to be complemented by measures to enhance resilience given West Africa's high-risk environment.

1) Develop differentiated policies for a diverse sector

At almost every level, the West African agrifood system is diverse. At the consumer end, three-quarters of the population earns less than US\$2 per day and is concerned primarily with expanding its access to inexpensive calories and protein, while the remaining quarter of the population represents a growing middle class that is upgrading and diversifying the quality of its diet.

A similar differentiation occurs in agroprocessing and, to a lesser extent, retailing, with a mix of large-scale and small-scale operations, frequently with few mid-sized formal-sector firms. Even farming is becoming increasingly diverse. Policies and investments need to acknowledge and respond to this diversity within at each segment of the agrifood system and interventions be tailored accordingly. In general, levelling the playing field by supporting micro-, small and medium operators along the value chain should be the main policy priority, but the potential for positive linkages and spillovers with large operators should not be dismissed. Special support to women and youth is a cross-cutting priority.

In the case of agroprocessing, a differentiated policy approach should start from the following considerations:

- Despite their great potential to contribute to value addition and employment creation, small and medium formal-sector agroprocessors face tougher challenges in accessing finance, technology, marketing, distribution networks, technical and managerial skills and maintaining a skilled workforce than do their larger counterparts. SMEs are also more vulnerable to a poor business enabling environment and are challenged to improve product quality, safety and presentation consistently in order to gain consumer confidence, especially in middle- and upper-income market segments. On the other hand, due to their tax and other obligations as part of the formal sector, they have higher costs than their competitors in the informal sector. Policies and programmes for this segment should focus on business and technical skills development, improving food safety and hygiene, upgrading product quality and marketing, and improving access to finance, electricity and raw material.
- Even though only a minority of enterprises in the artisanal sector might be able to upgrade and transition into formal enterprises, there is room to improve productivity as well as product quality and safety. They further constitute a pool of micro-enterprises, some of which might

be upgraded to target higher-value market segments, including export markets for fair-trade products. Support for this segment should include similar measures to those for the SME segment but be tailored to the specific conditions and capacity of small informal operators. The more growth-oriented of these enterprises also need assistance in transitioning to the formal sector.

Darge-scale processors contribute to food system transformation by introducing new products, skills and technologies, opening new consumer market segments and forming potential new market outlets for domestic farmers and primary processors. These direct and indirect benefits from large-scale agribusiness investments should be harnessed, e.g. by supporting wholesale modernization and contracting to deal with the raw-product aggregation problems that plague larger processors and modern retailers.

At the primary production level small family farms have an overarching economic and social importance in the region and are therefore naturally the prime target group of agricultural policies. The efficiency of family farms and their ability to respond to market demand and adopt technical change are amply documented in the region and elsewhere. While for most crops there are no clear economies of scale in production, small farms face major scale disadvantages in accessing markets, inputs and support services, due to high transaction costs. Moreover, commercial agriculture is becoming increasingly knowledge-driven as are the more environmentally sustainable techniques for intensification, whereas the majority of smallholder farmers have low levels of functional and technical literacy. Capacity building, collective action, strengthening of farmer organizations and institutional innovations in service provision are necessary to help overcome these diseconomies of scale to some extent and should be a major policy focus.

Although the evolution of farming structures was not the main focus of the AGWA study, many other studies have shown that even among the

smallholders who dominate farming in West Africa there is tremendous diversity, with roughly a third producing the bulk of the marketed surplus. Another third is made up of households that are net buyers of basic staples and which generally lack the resources to farm their way out of poverty, while the remaining third could go either way, depending on their access to markets, support services, and the agricultural policy environment. On top of this overlay of smallholder agriculture is a small but potentially growing group of larger-scale farm operations, often linked to agroprocessors.

Enabling the largest possible number of family farmers to increase and stabilize their yields and incomes should be a policy priority due to the various multiplier effects of smallholder-based growth. At the same time, because not everyone currently engaged in farming will be able and willing to farm their way out of poverty, one can envisage policies to promote different pathways to prosperity for the three subgroups described above:

- A commercial smallholder path, built upon competitive, market-oriented family business enterprises in agriculture and related value chains. This path, mainly open to better-endowed smallholders in high potential areas with good market access, focuses on improving farming as a business through increasing total factor productivity in farming, strengthening access to higher value product markets and to factor markets, and improving natural resource management (NRM). Commercial smallholders are also most likely to enter contracting relationships with agroprocessors and food retailers successfully.
- A strengthened transition path, which focuses on (1) stabilizing more marginal farm households' production for home consumption (through yield-stabilizing technologies, improved productivity particularly of its small livestock resources and improved NRM), (2) helping the better-off among them to increase marketable surpluses and transition into more commercial production, and (3) facilitating access to labour markets and non-agricultural

opportunities for those who need to supplement their farm incomes and, over time, transition out of farming. This path also focuses on enhancing access to education (to ease the next generation's transition out of farming) and providing social safety nets to avoid loss of assets due to various shocks such as drought, disease, or the death of a family member. For landless households, the focus is on improving access to labour markets, including migration.

A widely shared indirect benefits path, which affects all groups, but is particularly important for marginal farmers, the landless and urban consumers. This path exploits opportunities from: (1) the demand-induced employment stimulated by growth in the smallholder sector and from lower food prices, which raise real incomes and induce job creation in the non-agricultural sectors, and (2) the growing demand for processed and more convenient foods among the growing urban population and for value-added exports, which expands employment opportunities in the non-farm segments of the agrifood system.

None of the paths can be pursued independently of the others. For example, actions that are critical to the strengthened transition agriculture path, such as financing the investments in education and improvements in labour markets, depend on capturing and reinvesting some of the agricultural surplus generated by the commercial smallholder path. A productive and growing commercial agriculture is critical to expanding the tax base for local governments, which are increasingly called upon to provide the education and health services needed to promote a generational shift out of poverty agriculture.

 In increasingly buyer-driven value chains, food-system interventions should start from the consumer end

Better understanding of the forces driving consumer demand is a prerequisite for the food system to respond and compete successfully with imports. Consumers are the ultimate financiers of the agrifood system; hence, a better understanding of their preferences and the determinants of their purchasing decisions is paramount for agrifood system stakeholders, from retailers through processors to farmers. As highlighted before, food demand is evolving from undifferentiated bulk commodities towards product attributes. Any producer who can market a product with a set of attributes that meets consumers' changing circumstances (income levels, time availability, changing knowledge of health and nutrition, etc.) will gain a competitive advantage. This is especially important since food imports and products from multinationals producing in the region are increasingly becoming benchmarks concerning price, consistency of supply, and various product quality attributes.

This need to be attuned to consumer demands applies particularly in the more dynamic upper-income market segments, where consumers are more quality-conscious, but is also true in the lower-income market segments for attributes such as convenience. This is evidenced by the strong increase in consumption of rice and wheat-based products across all income segments in urban and rural areas but also the penetration of lower-income markets by dried and processed food products in small package sizes that are affordable even to poor consumers.

Dependable data on domestic food consumption trends is very limited and usually only available at the bulk commodity level. Conducting market research is expensive and usually beyond the reach of SMEs in farming and processing. Making better information and analysis of food consumption and marketing trends available to agrifood system stakeholders would be a useful support function of the public sector. It would better inform the design of subsector and value-chain strategies and help farmers and processors in their investment decisions. In addition, the public sector could assist associations of small farmers or SMEs engaged in agroprocessing, value chain councils and inter-professional bodies to conduct market research, product testing and develop branding strategies, on a cost-sharing basis.

3) Enhancing productivity and market efficiency is paramount

Responding to market opportunities and increased competition requires productivity growth throughout the agrifood system, increased market efficiency and value-chain coordination. Increasing productivity to drive down unit costs throughout the agrifood system is the only economically sustainable way to enhance producer incomes and competitiveness while at the same time promoting lower-priced food for consumers. More productive use of land, water and other natural resources also reduces pressure from further expansion of production into environmentally fragile areas. Labour productivity growth increases returns to labour, making agriculture more attractive to the young and helps prevent labour shortages at critical stages of the cropping cycle. Increased market efficiency and value chain coordination lead to lower marketing costs, benefiting farmers and consumers alike.

Productivity growth requires a combination of new technologies, inputs and support services and improved access to these by women as well as by men; improved infrastructure and market access; more competitive marketing systems; and institutional innovations that reduce risks and transaction costs of specialization and trade.

At the farm level, sustainable intensification should be the main avenue towards productivity growth. Addressing the problems of agricultural resource degradation and declining land productivity in West Africa will require a more sophisticated approach than simply trying to duplicate the Asian Green Revolution model based on improved seeds, expanded irrigation and greatly increased use of mineral fertilizers. It will require tailoring solutions to local farming systems; shifting from a focus just on increasing use of mineral fertilizers to a focus on soil health; an increased focus on soil and water management rather than just expansion of irrigation; development of improved, locally adapted varieties through a range of breeding techniques; and integrated methods of pest control. These methods are much more management- and knowledge-intensive than conventional farming techniques, implying a need

for their gradual introduction combined with a substantial investment in improving the skill levels of farmers, input dealers, extension personnel and research staff.

In the downstream parts of the value chain, increasing productivity of post-harvest, processing and marketing operations requires (1) investments in improved infrastructure and equipment (transport, storage, electricity and communications), (2) reforms in rules that restrict competition (e.g. in the trucking industry), and (3) better management and improved efficiency of marketing systems and value chains. These measures are needed to enable West African producers to respond more effectively to increasing requirements for quality, competitive costs and consistency of supply in order to avoid being squeezed out of growing markets and, within these, from the most lucrative market segments.

Upstream, an enabling legal, regulatory and policy environment is crucial for the development of private-sector-based input supply chains. Such an enabling environment should encourage innovation and cost reduction through competition and economies of scale in procurement and distribution (e.g., though the creation of effective regional markets for inputs), while ensuring quality and consumer protection.

Across the board, capacity development through education, vocational training, research and institutional strengthening is essential.

4) Enhancing value addition to capture greater market shares

The analysis of production and trade data has shown that the domestic producers are losing market shares in the rapidly growing markets for higher value and value-added food products. Hence, opportunities to capture a larger share of these growing market segments should be pursued more vigorously.

Value addition can take various forms, including processing, sorting, grading, cleaning, storage, packaging and presentation. The appropriate

strategy depends on the resource endowments, productive capacity and other location-specific factors in relation to identified market opportunities and market access conditions. Possibilities include:

- Expanding production and marketing of higher-value food categories with strong demand prospects for domestic markets, such as animal products, fruits and vegetables, and fats and oils. In export markets, demand is growing briskly for products like cashews, cocoa powder and shea butter if they meet standards for quality, traceability and compliance with good environmental and labour practices.
- © Creating greater convenience in the products offered to consumers, in terms of time, space, and form utility for example, production of products like instant noodles or gari that can be quickly prepared by those with no access to cooking facilities. Other forms of convenience include making products available in more convenient locations (e.g. along commuting routes), in a range of different serving sizes with clear preparation instructions and in already-prepared forms.
- Developing greater product differentiation within a given food category—e.g. a more differentiated set of grades for rice and meats and broader selection within fruits and vegetables, fruit juices with different degrees of natural fruit content and (in the export market) cocoa products produced and marketed with a broader range of attributes than just bulk cocoa powder (organic, free-trade, etc.). Packaging, preservation, freshness, and shelf-life are further paths for value addition through quality differentiation.

However, before investments in any value-addition strategy are made, it is crucial to ensure that real market demand is being met and that buyers are willing to pay a premium that is sufficiently high to compensate increased costs and leave a profit. Otherwise, adding value for consumers can result in income losses for producers.

There are important roles for the public sector to play in supporting this move to greater value addition while balancing producer and consumer interests. These include:

- Enhancing the awareness of nutritional values, health implications and safety concerns of different fresh and processed food products in order to enable consumers of all income brackets to make better-informed purchasing decisions.
- Strengthening national food safety systems to enhance their effectiveness and consumers' trust in these systems instead of relying on private standards or perceived higher food safety levels of international brands.
- » Supporting domestic producers along the food value chain in adopting better hygiene and safety standards through awareness campaigns, capacity development and better access to improved processing technologies. Improving the marketing system for fresh produce, especially fruits, vegetables, meat and fish, through market infrastructure, transport and cold chains in order to reduce spoilage and losses and enhance the availability, safety and quality of these products into urban areas, thereby contributing to a more balanced diet.
- Encouraging the development and modernization of the food wholesaling industry, which in Asia has played a major role in connecting small producers with processors and retailers through quality differentiation and volume transformation.
 - 5) More effective regional integration is critical to achieving many of the needed productivity gains

If West African Agriculture is to be competitive with large global actors such as Brazil, China and India, it needs to capture some of the scale economies those countries enjoy. To do so, West Africa requires more harmonized grades and standards for agricultural inputs and outputs, common procedures for approval and release of improved seed varieties, regionally coordinated systems of agricultural

research and higher education, reform of rules limiting competition in transport services across the region and removal of restrictions that limit agroprocessors from sourcing agricultural products across national borders. Such measures are also critical in attracting increased private investment, as the allure of selling to a regional market of over 300 million customers is infinitely more attractive than trying to set up operations in 15 different countries, most of which have a small customer base.

The future of regional integration, however, depends critically on the behaviour of the big players, especially Nigeria. In terms of production, exports, imports, and effective demand, West Africa's Agricultural market is dominated by four big players-Nigeria, Ghana, Cote d'Ivoire and Senegal. These countries account for two-thirds of the population, over 80% of the GDP, three-fourths of agricultural imports and over 80% of agricultural exports. These countries also serve as major sources of demand for their neighbours and are recipients of large intra-regional labour flows. Policy decisions by these four countries-and especially Nigeria-will condition the future of ECOWAP. However Nigeria, like most countries in the region, has in the past set its Agricultural policies largely independently of its neighbours - for example, by imposing trade bans for selected products even from fellow ECOWAS countries. Its involvement in the design of ECOWAP has been surprisingly small given Nigeria's importance in the regional market, and the country's Agricultural Transformation Agenda appears to have been designed with little reference to ECOWAP. Similarly, the decisions of Ghana and Cote d'Ivoire to initial interim EPAs with the European Union in 2007, while necessary to preserve their preferential access as non LDCs to the EU market, complicated the completion of a West Africa-wide EPA. A critical challenge for the future of ECOWAP will be to emphasise areas of strong mutual interest among, on the one hand, the "big four" - particularly Nigeria - and, on the other hand, the other members of the Community. Without this type of alignment, the regional policy may end up being mainly a tool to help smaller countries adapt to the policies developed independently by Nigeria, Ghana, Cote d'Ivoire and Senegal.

6) Agricultural productivity growth needs to be complemented by measures to enhance resilience in a high-risk environment

The willingness of actors to adopt productivityenhancing innovations throughout the agrifood system depends on their ability to manage risks in an environment subject to recurrent shocks. Without improved tools to manage these risks, productivity enhancing investments will either not be made or be tilted towards the better-off actors, with higher capacity to bear risks, with the result that the benefits of growth will go primarily to the rich. Key elements of a resilience agenda to complement an Agricultural growth agenda include:

- Introducing or scaling up climate-smart agriculture practices that increase the efficiency of resource use while enhancing resilience to climate variability and reducing greenhouse gas emissions. These practices are much more knowledge- and management-intensive than conventional agricultural techniques, implying a need to strengthen skills throughout the agrifood system.
- Strengthened agricultural research systems to develop plant varieties and animal breeds more tolerant to drought, pests and disease.
- Improving water and soil management, including but not limited to improved access to irrigation. Irrigation efforts should include experimentation with a range of scales and institutional arrangements to find the most-cost effective models. In rain-fed areas, the agenda includes improved techniques to manage and conserve water and soil moisture, in part through better soil management. More secure access to a reliable source of water not only reduces production risks but, because of that risk reduction, also increases the willingness of banks and other organizations to extend credit to farmers, further strengthening their resilience.
- Supporting measures to mitigate and cope with price volatility, such as improved storage, expanded regional integration, and warehouse receipt systems.

- Strengthening the security of land and water rights in order to reduce the risks of loss of productive assets, induce productivity-enhancing investments and facilitate labour mobility and hence diversification of income sources.
- Introducing weather-based crop insurance systems especially when linked with cell-phone-based payment that greatly reduce costs. In East Africa such insurance is showing increasing promise of becoming commercially viable.
- Supporting income diversification through both farm and non-farm activities linked to growing market demands.

IX. The way forward: key elements to enhance policy effectiveness

Achieving more rapid, broad-based and sustainable Agricultural growth in West Africa and putting in place the policy priorities outlined in the previous section requires three things:

- An improved policy environment that (i) induces greater Agricultural investment in productivity-enhancing technologies and institutional innovations by private-sector actors (including farmers), (ii) enhances quality and improves risk management throughout the agrifood system, and (iii) provides a more predictable and effective set of tools for improving the poor's access to food;
- Critical public-sector investments that complement and "crowd-in" additional private investment and address critical food policy objectives, such as improved risk management; and
- » Strengthened policy implementation.

Improved enabling environment and investment climate

Addressing the productivity challenges facing West African Agriculture in order to achieve sustainable and broad-based growth requires investments. Given that Agriculture is a private-sector

activity, the bulk of these investments must come from the private actors at various levels of the agrifood system: farmers, input suppliers, processors, transporters, and providers of support services. Nevertheless, the ability and incentives of the private sector to make sustainable, productivity-enhancing investments depends to a large extent on the existence of a conducive investment climate. Shaping the incentive framework is a core function of public policies.

Key elements of an effective policy environment are its *stabiliy and predictability, focus, participation and inclusiveness, coherence and ability to evolve over time* as the economy and broader society evolves.

Policy stability and predictability

A stable and predictable policy environment is paramount in order to instil confidence in agrifood system operators of all scales to make substantial long-term investments. A key element of a stable and predictable policy environment is that government interventions in input and output markets are rule-based rather than ad hoc.

Important measures to enhance policy predictability include, for example, clearly spelling out the rules under which the state will restrict exports or imports to protect domestic producers or consumers and the conditions under which inventories from national food security stocks will be released. Specific actions needed to improve the predictability of policy include the development of transparent codes for management of national and regional food reserves and clear rules about when governments will undertake trade interventions. ECOWAS could play a key role by highlighting exemplary practices by member states and developing model legislation and management codes in these areas. Another important measure would be to improve data and information concerning critical indicators of agrifood system performance. Areas where data problems are particularly acute include the levels of intraregional trade flows and inventory levels for key staples, particularly cereals, at the farm and trader levels. Lack of reliable data about these core parameters often induces governments-fearing shortages-to impose export bans or release stocks.

A predictable policy environment requires a broadly shared consensus about the public sector's roles and priorities in Agriculture. Despite recent rhetoric about the need for public-private partnerships, there is frequently still a deeply rooted mistrust between the public and the private sector. Often, this mistrust arises because of recurrent policy reversals. These reversals undermine the confidence of the private sector that government policy pronouncements can be trusted, so the private sector is understandably reluctant to make the long-term investments needed to increase food system productivity. Government, in turn, often views such reluctance as proof of the incapacity or unwillingness of the private sector to respond, prompting another set of policy changes and generating a vicious cycle of policy instability.

These vicious circles can be observed in various input and output markets as well as in rural and agricultural finance. Examples include:

- Buffer stocks with unclear rules regarding stocking levels and trigger prices for purchases, sales, and trade, which discourage investments in private storage and the development of warehouse receipt systems and financing;
- Input and credit subsidies, which undermine the development of sustainable, private-sector supply chains and service providers;
- Debt forgiveness programmes prior to elections, which undermine repayment culture, leading to higher interest rates and increased reluctance of banks to finance Agriculture.

Breaking these vicious circles requires developing a broadly shared consensus about the role and priorities of public policies and investments in Agriculture among key stakeholders and disciplined governments sticking to their defined roles despite lobby pressures and short-term political priorities. Promoting broad-based stakeholder consultations and fostering stakeholder involvement in the very early stages of policy development can help develop this shared understanding of public- and private-sector roles.

Policy focus

Focus on the main building blocks rather than just on quick wins. Relaxing the key constraints to broad-based agricultural growth takes time. Agricultural research, a key public good with high returns, requires a long time horizon to generate improved technologies adapted to the variety of local conditions. The same applies to developing input and rural financial markets, addressing infrastructure constraints, and strengthening human and institutional capital, such as building more effective interprofessional organizations. Countries that managed to develop competitive Agricultural sectors and agro-industries such as Brazil, Thailand and Chile strengthened their infrastructures, invested in a constant stream of technologies and built strong institutions over several decades, rooted in a focused, long-term vision. Successful agricultural subsectors in West Africa, such as cotton in Francophone countries (until the early 2000s) and cocoa in Ghana and Côte d'Ivoire share similar characteristics. Even though the role of the public sector and the structure of the private sector differ in these examples, a common denominator is a gradual evolution of policies backed by consistent investments in public goods over long time horizons. On the other hand, crash programmes with overambitious short-term targets and based heavily on subsidies have little chance of leading towards long-term, self-sustained growth. While most strategy and policy documents clearly identify the key longterm structural constraints and related regulatory reform and investment priorities, in practice, West African countries have placed too much emphasis on short-term measures and subsidies.

Participation

Broad stakeholder participation and empowerment are essential to improving the quality of policies and policy processes. The CAADP process calls for strengthening broad multi-stakeholder engagement in policy formulation, implementation, monitoring and evaluation to enhance policy effectiveness and accountability and increase pressure on governments to continue successful policies beyond the next election. Success to date in translating this inclusiveness into practice has been mixed. Key challenges include organising and promoting collaboration among the very diverse agrifood system stakeholders, especially in the private sector beyond the farm, which includes agribusinesses ranging from artisanal processors and small traders to multinationals. Key actions needed include capacity building of different professional and interprofessional organizations and strengthening the platforms for them to participate in policy formulation, implementation, monitoring and evaluation. Central to success is involving these actors early in the initial stages of policy formulation, giving them specific responsibilities throughout these processes and requiring them to account for their performance.

Inclusiveness

While broad stakeholder participation is important to ensure coherence and accountability, specific efforts are needed to level the playing field and empower small and less organised actors' participation in the economic and political arenas (e.g., small farmers, traders, artisanal processors and food services providers and, among these, especially women and youth). Economic empowerment includes specific measures aimed at (1) enhancing access to productive assets, inputs and support services, training and skills development; (2) supporting collective action to engage more effectively with other food systems stakeholders; and (3) strengthening resilience and the capacity to manage risks. Political empowerment includes legal (civil) recognition as citizens and economic actors, along with capacity development and organizational strengthening for more effective participation in policy processes.

Policy coherence: agricultural policies alone cannot do the trick

Many of the key components in creating an enabling environment for rapid, inclusive Agricultural growth involve elements beyond the traditional mandates of ministries of agriculture. Policies regarding trade, the transport sector, industrial development, the financial sector, education and health are all critical. Improved policy coordination and coherence across ministries is therefore paramount. Strengthening arrangements to improve inter-ministerial coordination, such as the intersectoral coordination committees in Ghana and, at the regional level, the ECOWAS Inter-departmental

Committee on Food and Agriculture, will be important in improving intersectoral policy coherence. Critical to the success of these efforts is having a high-level champion for such coordination (for example, the Prime Minister or President) and vesting the coordinating structures with enough authority to induce cooperation across ministries and line agencies. Providing specific budget lines that can only be used in such interministerial efforts may be another way of helping induce better coordination.

Ability of policies to evolve

The need for stability does not imply that policies should remain static. Indeed, in an environment of constantly changing consumer demand, market conditions, technologies and agro-ecologic conditions, stagnation is a recipe for failure. Policies need to adapt to changing environments, but large, abrupt changes, as typified by some of the policy shifts in Nigeria in the past, may create more harm than good. Developing a more on-going approach to policy evolution requires consistent monitoring of policy implementation, strong market information systems and capable policy analysis units. This process should be enhanced by developing close links between policymaking agencies and broad stakeholder groups (e.g. through the platforms discussed above). It is also important that key policy measures not be ensconced in laws or administrative decrees that are difficult to change in a timely way if circumstances warrant.

Critical public investments

Increasing the level of public investments in and for Agriculture is important, but a better investment mix is even more important. Much of the recent increase in agricultural spending has been used for subsidies for private goods, mainly fertilizer and other inputs, as well as farm equipment. Concerning infrastructure, the bulk of the resources is dedicated to irrigation, which, while understandable in light of the challenges of climate change, raises questions about cost and long-term management of such facilities. In contrast, rural roads or market infrastructure receive comparatively little funding. The danger is that heavy spending on

subsidies may crowd out other public investments in key public goods, which are critical to long-term growth, while at the same time discouraging private investments in the provision of the goods being subsidised.

In view of the limited public funds, the public sector should focus its investments in areas with the highest returns for long-term, broad-based growth and in which the private sector has limited ability or incentives to invest. While all governments need some short-term measures with quick wins and visible benefits, a better balance is needed between such measures and long-term investments and reforms that address crosscutting constraints and establish the key building blocks for sustained growth. The analysis in the AGWA study, in line with an ample body of literature, suggests the following key areas in this regard:

- Agricultural research, extension and related human capital development. Research and extension in the region have been generally underfunded and are faced with aging personnel, many of whom will soon move on to retirement. Given the small size of most national research systems in the region and the fact that major production basins for key commodities frequently transcend national boundaries, there are also major scale economies that could be captured through more effective regional coordination of national research and extension efforts.
- » Infrastructure, especially, rural roads, market infrastructure, irrigation and a reliable supply of electricity, for reasons discussed above.
- Building the skill base for Agriculture in the twenty-first century. Transforming West African Agriculture into a modern driver of economic growth will require a profoundly different set of skills at all levels in the agrifood system than currently exists in most ECOWAS countries. Needed actions include strengthening basic literacy, particularly at the farm level; linking curricula (e.g. in mathematics and biology) in primary and secondary schools to applications in farming and agro-industry;

expanding vocational education programmes in the large range of technical skills needed by workers in a modern agrifood system; attracting more girls into the sciences, given the important role that women play in West African Agriculture; and broadening undergraduate university education in faculties of agriculture to include fields critical in downstream areas of the agrifood system, such as food science, packaging and logistics.

- Supporting collective action and institutional innovations for managing risks and reducing transaction costs. Many West African value chains face recurrent problems of vertical coordination, including high costs of product aggregation at the farm level and ensuring reliable supplies of products of consistent quality to processors and retailers. Strengthened collective action, both at the farm level (through producer organizations) and among different actors within the value chains (through value chain councils or interprofessional organizations) are needed if Agricultural growth in the region is to be broad based. An alternative to such collective action is for individual large firms to vertically integrate, handling all these tasks internally, but such a model excludes many of the smaller actors from participating in the system in any role other than that of hired labourers.
- Efforts to improve food safety and quality. Improving food safety has a clear public health justification. Food safety and quality improvements, however, are also traits increasingly important to West African consumers, particularly among the growing urban middle class. Firms that fail to deliver these are at a competitive disadvantage with imports.

Investments in hardware need to be complemented by policy and regulatory reforms. In most cases, investments in "hardware" such as infrastructure alone are not sufficient and need to be complemented by policy and regulatory reforms and investments in "software", such as institutional and human resource capacity to ensure their effective implementation. For example:

- Important investments have been made in recent years to improve road quality on major transport corridors. Nevertheless, the region faces the highest transport costs in the world. The main reasons for this are problems related to road governance and the structure of the trucking industry. Unless reforms in these critical areas are implemented, the potential benefits of large road infrastructure investments will not materialize.
- To complement and induce greater private-sector investments in storage and equipment throughout the agrifood system, legal and regulatory frameworks are needed to enhance agricultural finance, such as for leasing, warehouse receipt financing, collateral registries and credit bureaus.
- To reap the full benefits of public investments in infrastructure, capacity development and collective action in terms of stimulating private investments, further improvements are needed to increase the ease of doing business. ECOWAS countries generally rank in the bottom third of all countries in the world in terms of the World Bank's indicators of ease of doing business (licensing requirements, time to register a business, corruption, etc.); without improvement in these conditions, it is unlikely that West African Agriculture can become competitive globally for anything other than a few tropical products where the region has a strong locational advantage.
- » A critical element in improving the regulatory environment is strengthening contract enforcement systems—e.g. through the establishment and strengthening of commercial courts and arbitration systems. Without reliable contract enforcement and commercial dispute resolution processes, transaction costs and risks of undertaking any sort of specialization and trade increase sharply and make it very difficult for the agroprocessors and modern retailers to ensure reliable supplies of agricultural products at consistent quality levels. Contract enforcement, however, needs to be coupled with improved arrangements for risk sharing and resilience within the agrifood system. In a risky environ-

ment, such as that which characterises West African Agriculture, a single-minded focus on contract enforcement without a concern for risk sharing among value-chain actors is a recipe for concentration of resources, as only the better-off will be able to absorb the risks inherent in contracting. Thus, the contract-enforcement agenda needs to go hand-in-hand with an agenda to help build resilience throughout the agrifood system through measures discussed earlier.

Enhancing access to finance is another policy area and that requires a combination of investments in infrastructure and an enabling business and regulatory environment. Investments in roads, electricity, marketing infrastructure, and irrigation reduce risks and transaction costs for both financial institutions and their clients. Telecommunication infrastructure enables the use of point-of-sale devices and mobile-phone banking to expand access to financial services into remote rural areas. Political and economic stability is not only critical to expand lending but also savings mobilization, which tends to be even more important than lending services for the majority of rural households. Well-functioning value chains reduce some of the risks and transaction costs in agricultural finance and may partially substitute for conventional loan collateral. An enabling legal, regulatory and institutional framework for leasing and warehouse receipt finance and the establishment of collateral registries and credit bureaus can further unlock agricultural finance. Finally, risk management instruments are critical to enable financial institutions to invest a larger share of their loan portfolio in the sector.

Strengthening policy implementation

Improving policy implementation requires (1) strengthening the implementation, analytic, and monitoring and evaluation capacities of key agencies and organizations charged with implementation; (2) improving the data base upon which policy decisions are made; and (3) working to strengthen the alignment between the interests of the different countries, individual actors, and the region as a whole.

Strengthening implementation, analytic and M&E capacity

Given the ambitious scope of the national and regional CAADP programmes, there is need to upgrade sharply the implementation, analytic, and M&E capacity within ministries of agriculture and trade and among private stakeholders that will be counted on to implement the programmes. Such upgrading has several dimensions:

- At the level of national and local governments, many of those charged with implementing policies (e.g. customs officers at the border) frequently lack information about the content of regional and national policies, such as the ETLS. Moreover, even if they know about the policies, they often lack the operating budget and physical facilities to translate the rules into reality, as is the case with the food safety regulations discussed above.
- Description Local governments, particularly at the district and sub-district levels, are increasingly called upon to implement policies to manage natural resources and local agricultural support services, but have a very weak knowledge of many of these policies, managerial capacity and operating budgets to implement them, and training in M&E to evaluate their impact.
- CAADP programmes call for joint implementation of programmes by governments and stakeholders, such as producer organizations. Improving the managerial and organizational capacity of farmer and interprofessional organizations and of agro-input dealers is an important component of the regional and most national ECOWAP/CAADP plans. Such efforts need to be broadened to include consumer organizations and local governments, which are also key stakeholders in Agricultural development, and to strengthen their analytic (e.g. M&E) as well as managerial and organizational skills.
- Improved analytic capacity among a broader range of stakeholders will also strengthen and make more democratic policy design as well as implementation, allowing these stakeholders

to go beyond just demanding "a seat at the table" when Agricultural policies are formulated and bring their own analysis to bear in policy formulation, implementation, and monitoring and evaluation.

- It is unrealistic for all these organizations to develop their own in-house M&E and analytic capacity. ECOWAS and national governments, however, through co-funding programmes, could help them develop arrangements to mobilize West African technical expertise (for example, from universities in the region, local consulting firms and NGOs) to help raise their level of understanding of key issues and their skills in helping implement, monitor, and evaluate them.
- » In terms of strengthening policy analytic capacity within national ministries, it would be very helpful if ECOWAS could continue to sponsor the types of training programmes and networking among the national CAADP design teams begun under ECOWAP to help build a stronger community of practice among such analysts. This would provide very useful opportunities for cross-country learning during the process of ECOWAP implementation.
- Within the ECOWAS Commission, strong capacity upgrading is needed in the Department of Agriculture, Water Resources and Environment (DAERE) charged with overall management of ECOWAP, the new Regional Agency for Food and Agriculture, the ECOWAS Agricultural Development Fund, and the ECOWAS M&E Unit, which is charged with not only coordinating the M&E of the regional programme but also helping to frame a common approach to M&E for the national programmes. The regional ECO-WAS investment plan recognises the capacitybuilding needs of the DAERE, but given the scope of the proposed programmes, these efforts need to stress not only building in-house capacity but also increased capacity to mobilize regional expertise in West Africa's specialized agencies (e.g. within CILSS), universities, and independent think tanks.

In addition to strengthening capacity within national and regional agencies charged with policy design, implementation, and M&E, there is a need to build regional centres of excellence, in West African universities and think tanks, that can engage in broader, more long-term policy analysis than line agencies in ministries of agriculture and in ECOWAS can. Currently within ECOWAS, this analytic role is carried out largely by ReSAKSS, but there is a need to broaden the number of centres to draw on the expertise in various research and teaching institutions in the region.

Data needs

Lack of comprehensive and reliable data, particularly concerning the downstream segments of the agrifood system, such as agroprocessing, wholesaling, logistics and retailing, plague the development of empirically based policies in West Africa. It also raises the probability of misallocation of public investments in the agricultural sector.

Incentive alignment

In the final analysis, the main challenge in policy implementation is the alignment of individual and group incentives. In ECOWAS, this involves two levels: (1) alignment of the incentives of individual member states versus those of the region as a whole and (2) incentives facing individual agents for enforcement of regional or national policies.

In terms of aligning national and regional incentives, the decision in the regional CAADP programme to make some of the regional programme funding conditional upon national governments harmonising their policies and respecting their commitments to open trade is an important step forward. It should be recognised, however, that on some matters, the economic interests of the ECOWAS member states will differ so much that reaching a regional consensus will be very difficult. Regional policy thus needs to be modest, focusing first on the "low-hanging fruit" where national interests largely converge, as there is already plenty of policy work to do in these areas.

The alignment of individual and group interests in policy implementation is particularly linked to the problems of bureaucratic red tape and rentseeking by those charged with policy implementation. In this regard, increasing salaries of government agents, such as customs and police officials, may help reduce their incentives for such behaviour, as would linking the funding of their agencies to performance on independently monitored indicators of ease of doing business. Perhaps the strongest incentives for transparent and effective policy implementation will result from encouraging strong national and regional private-sector and civil-society stakeholder groups and a free press that can act as counterweights to inefficient and/or corrupt policy implementation.